

OPTICAL DISK DRIVE WITH ADAPTIVE COMPENSATOR

Abstract

An optical disk drive for accessing data stored on a compact disc has a housing, a sled sliding inside the housing, a driving device for driving the sled, an actuator installed on the sled, a servo device for providing a push force to drive the actuator, a control circuitry for controlling operations of the optical disk drive, an adaptive compensator, and an error signal generation circuit. The actuator can move within a predetermined range on the sled, wherein the predetermined range includes a linear region and a non-linear region. It is desirable to keep the actuator within the linear region of the predetermined range. For this, an adaptive compensator is used to provide a supplementary force to the sled when the actuator is near the non-linear region.